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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/764,114

01/23/2004

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J6877(C)

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201 7590 03/24/2009
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EXAMINER

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ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

03/24/2009

PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DIANE MARIA DABKOWSKI and CINDA SUE CARLSON

Appeal 2008-3958
Application 10/764,114
Technology Center 1700

Decided:¹ March 24, 2009

Before TONI R. SCHEINER, DONALD E. ADAMS, and DEMETRA J. MILLS, *Administrative Patent Judges*.

ADAMS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal under 35 U.S.C. § 134 involves claims 1-13, 15-17, 19, and 20. Pending claim 18 has been withdrawn from consideration as drawn

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

to a non-elected invention (*see, e.g.*, April 17, 2007 Final Rejection 2: ¶ 1).
We have jurisdiction under 35 U.S.C. § 6(b).

STATEMENT OF THE CASE

The claims are directed to a shampoo composition. Claims 1, 5, and 11 are illustrative:

1. A mild aqueous shampoo composition having excellent detangling and conditioning properties comprising:

i) about 6 to about 8% of an alkyl ethoxy sulfate surfactant wherein the alkyl group has an average of 12-16 carbon atoms and the degree of ethoxylation is at least 3,

ii) from about 2% to about 7% of a betaine surfactant,

iii) from about 2% to about 7% of a hydroxysultaine surfactant,

iv) from about 0.1% to about 5% of a non-volatile, water-insoluble silicone,

v) at least about 70 wt% water;

vi) less than about 2% of an added surfactant selected from the group consisting of alkyl sulfates and alkyl or alkyl aryl sulfonates, ethoxylated alkylphenols and ethanolamides of aliphatic acids;

wherein the weight ratio of the betaine surfactant to the hydroxysultaine surfactant is in the range of from about 0.5 to about 1.5, and the weight ratio of the alkyl ethoxy sulfate surfactant to the sum of the weights of betaine surfactant and hydroxysultaine surfactant is in the range of from about 0.5 to about 1.5; wherein the composition is not a potential eye irritant as measured by having either a Zein solubility of less than about 1% as measured by the Zein Solubility In-Vitro Assay or a % permeability of fluorescein leakage less than about 10% as measured by the Fluorescein Leakage Assay; and wherein the composition has a wet-combing force less than about 20 gm-force as measured by the Wet and Dry Combing Force In-Vitro Assay.

5. The composition according to claim 1, wherein the non-volatile, water-insoluble silicone is a microemulsion.

11. The composition according to claim 1 further comprising a polyethylene glycol fatty diester selected from the group consisting of PEG 120 methyl glucoside dioleate, PEG-150 pentaerythrityl, PEG-75 dioleate, PEG-150 distearate and mixtures thereof.

The Examiner relies on the following evidence:

Gallagher et al.	WO 99/53889	Oct. 28, 1999
Brooks et al.	WO 00/02532	Jan. 20, 2000
Patel et al.	US 6,165,454	Dec. 26, 2000
Baravetto et al.	US 6,174,522 B1	Jan. 16, 2001
Fairley et al.	US 2002/0192180 A1	Dec. 19, 2002
Alvarado et al.	US 2003/0022799 A1	Jan. 30, 2003
Booker et al.	US 2003/0114323 A1	Jun. 19, 2003

Appellants rely on the following evidence:

Carlson Declaration (First Dec.), executed April 17, 2006.
Carlson Declaration (Second Dec.), executed September 28, 2006.

The rejections presented by the Examiner are as follows:

1. Claims 1-4, 7-9, 15, 16, 19, and 20 stand rejected under 35 U.S.C § 103(a) as unpatentable over Brooks.
2. Claims 1-4, 6-10, 15, 16, 19, and 20 stand rejected under 35 U.S.C § 103(a) as unpatentable over Patel.
3. Claims 1-4, 6-9, 11, 12, 15, 16, 19, and 20 stand rejected under 35 U.S.C § 103(a) as unpatentable over Alvarado.
4. Claims 1-4, 6-10, 15, 16, 19, and 20 stand rejected under 35 U.S.C § 103(a) as unpatentable over Baravetto.
5. Claims 1-10, 15, 16, 19, and 20 stand rejected under 35 U.S.C § 103(a) as unpatentable over Fairley or Gallagher.
6. Claims 11-13 and 17 stand rejected under 35 U.S.C § 103(a) as unpatentable over the combination of Patel, Fairley, Gallagher, Brooks, or Baravetto taken with Booker.
7. Claim 5 stands rejected under 35 U.S.C § 103(a) as unpatentable over the combination of Baravetto and Fairley.

8. Claims 5 and 6 stand rejected under 35 U.S.C § 103(a) as unpatentable over the combination of Brooks and Fairley.

We reverse.

PRINCIPLES OF LAW

“In proceedings before the Patent and Trademark Office, the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art.” *In re Fritch*, 972 F.2d 1260, 1265 (Fed. Cir. 1992).

“In determining whether obviousness is established by combining the teachings of the prior art, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.” *In re GPAC Inc.*, 57 F.3d 1573, 1581 (Fed. Cir. 1995) (internal quotations omitted). Nevertheless,

[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.

KSR Int’l Co. v. Teleflex Inc., 550 U.S. 398, ___, 127 S. Ct. 1727, 1741 (2007). Stated differently, “there must be some articulated reasoning *with some rational underpinning* to support the legal conclusion of obviousness.” *Id.* (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (emphasis added)).

*The rejection over Brooks, Patel, Alvarado, Baravetto, Fairley, or
Gallagher:*

ISSUE

Did the Examiner meet his burden of establishing that the prior art teaches a composition wherein the weight ratio of the betaine surfactant to the hydroxysultaine surfactant is in the range of from about 0.5 to about 1.5, and the weight ratio of the alkyl ethoxy sulfate surfactant to the sum of the weights of betaine surfactant and hydroxysultaine surfactant is in the range of from about 0.5 to about 1.5 as required by Appellants' claimed invention?

FINDINGS OF FACT

FF 1. The Examiner finds that Brooks, Patel, Alvarado, Baravetto, Fairley, and Gallagher each teach a composition that comprises alkyl ethoxy sulfate surfactant; betaine surfactant; hydroxysultaine surfactant; non-volatile; water-insoluble silicone; water; and added surfactant in ranges that encompasses, overlap, or are close to the claimed ranges (Ans. 3-4, 5-6, 7-8, 9-10 and 12-13).

FF 2. The Examiner finds that Brooks, Patel, Alvarado, Baravetto, Fairley, and Gallagher, do "not teach, with sufficient specificity, a cleaning composition having the specific physical parameters containing an alkyl ethoxy sulfate surfactant, a betaine surfactant, a hydroxysultaine surfactant, a non-volatile, water-insoluble silicone, water, and the other requisite components of the composition in the specific proportions as recited by the instant claims" (Ans. 4, 6, 9, 11, and 14).

FF 3. Appellants' Specification discloses that

The weight ratio of betaine to hydroxysultaine and the relative proportions of the ethoxysulfate to total amphoteric (betaine plus hydroxysultaine) are critical to achieve wide formulation compatibility and a high degree of mildness. The weight ratio of betaine to hydroxysultaine should be in the range from about 0.5 to about 1.5, preferably from about 0.6 to about 1.0, and most preferably from about 0.7 to about 0.85. The weight ratio of ethoxysulfate to total amphoteric should be in the range from about 0.5 to about 1.5, preferably from about 0.8 to about 1.2, and most preferably from about 0.9 to about 1.1.

(Spec. 6: 20-27.)

ANALYSIS

Claim 1 requires, *inter alia*, that the weight ratio of the betaine surfactant to the hydroxysultaine surfactant is in the range of from about 0.5 to about 1.5, and the weight ratio of the alkyl ethoxy sulfate surfactant to the sum of the weights of betaine surfactant and hydroxysultaine surfactant is in the range of from about 0.5 to about 1.5. Claims 2-4, 6-12, 15, 16, 19, and 20 depend directly or indirectly from claim 1.

Notwithstanding the Examiner's factual finding (FF 2), the Examiner concludes:

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a cleaning composition having the specific physical parameters containing an alkyl ethoxy sulfate surfactant, a betaine surfactant, a hydroxysultaine surfactant, a non-volatile, water-insoluble silicone, water, and the other requisite components of the composition in the specific proportions as recited by the instant claims.

(Ans. 4, 6, 9, 11, and 14.)

Appellants contend that Brooks, Patel, Alvarado, Baravetto, Fairley, and Gallagher are silent with regard to “the ratios of the betaine surfactant to the hydroxysultaine surfactant and of the alkyl ethoxy sulfate surfactant to the sum of the betaine surfactant and the hydroxysultaine surfactant” (App. Br. 12, 17, 20-21, and 25).

The Examiner’s prima facie case of obviousness is based on the premise that Brooks, Patel, Alvarado, Baravetto, Fairley, and Gallagher each teach a range of each ingredient that encompasses or overlaps Appellants’ claimed ranges (FF 1). Even if this were true; the Examiner has failed to identify, or provide any persuasive rationale to establish that any of Brooks, Patel, Alvarado, Baravetto, Fairley, and Gallagher suggests a composition that requires a *relationship* between the weight ratios of particular ingredients in the composition. Specifically, a composition wherein the weight ratio of betaine surfactant to the hydroxysultaine surfactant is in the range of from about 0.5 to about 1.5, and the weight ratio of the alkyl ethoxy sulfate surfactant to the sum of the weights of betaine surfactant and hydroxysultaine surfactant is in the range of from about 0.5 to about 1.5.

The mere fact that a worker in the art could modify the composition taught by Brooks, Patel, Alvarado, Baravetto, Fairley, or Gallagher to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. In this regard, we note that while no *explicit* suggestion in the prior art is necessary to establish a prima facie case of obviousness, the Examiner still has a burden of explaining why a person of ordinary skill in the art would

have been prompted to modify the prior art to make the claimed invention. *KSR*, 550 U.S. at ___, 127 S. Ct. at 1741 (“[T]here must be some articulated reasoning *with some rational underpinning* to support the legal conclusion of obviousness.” (quoting *In re Kahn*, 441 F.3d at 988 (emphasis added))).

CONCLUSION OF LAW

The Examiner failed to meet his burden of establishing that the prior art teaches a composition wherein the weight ratio of the betaine surfactant to the hydroxysultaine surfactant is in the range of from about 0.5 to about 1.5, and the weight ratio of the alkyl ethoxy sulfate surfactant to the sum of the weights of betaine surfactant and hydroxysultaine surfactant is in the range of from about 0.5 to about 1.5 as required by Appellants’ claimed invention.

The rejection of claims 1-4, 7-9, 15, 16, 19, and 20 under 35 U.S.C § 103(a) as unpatentable over Brooks is reversed.

The rejection of claims 1-4, 6-10, 15, 16, 19, and 20 under 35 U.S.C § 103(a) as unpatentable over Patel is reversed.

The rejection of claims 1-4, 6-9, 11, 12, 15, 16, 19, and 20 under 35 U.S.C § 103(a) as unpatentable over Alvarado is reversed.

The rejection of claims 1-4, 6-10, 15, 16, 19, and 20 under 35 U.S.C § 103(a) as unpatentable over Baravetto is reversed.

The rejection of claims 1-10, 15, 16, 19, and 20 under 35 U.S.C § 103(a) as unpatentable over Fairley or Gallagher is reversed.

The rejection over the combination of Patel, Fairley, Gallagher, Brooks or Baravetto taken with Booker:

ISSUE

Did the Examiner meet his burden of establishing that the prior art teaches a composition wherein the weight ratio of the betaine surfactant to the hydroxysultaine surfactant or alkylamido hydroxysultaine is in the range of from about 0.5 to about 1.5, and the weight ratio of the alkyl ethoxy sulfate surfactant to the sum of the weights of betaine surfactant and hydroxysultaine surfactant or alkylamido hydroxysultaine is in the range of from about 0.5 to about 1.5 as required by Appellants' claimed invention?

FINDINGS OF FACT

FF 4. The Examiner relies on the combination of Patel, Fairley, Gallagher, Brooks or Baravetto as discussed above (Ans. 15).

FF 5. The Examiner finds that none of Patel, Fairley, Gallagher, Brooks or Baravetto "teach the use of PEG-150 distearate in addition to the other requisite components of the composition as recited by the instant claims" (*id.*).

FF 6. The Examiner finds that Booker teaches

[A] moisturizing detergent composition that is mild to the skin and eyes. The composition includes a cationic polymer, a monoester emollient, a di- and/or tri-ester emollient, and a surfactant. The compositions are useful as shampoos, washes, baths, gels, lotions, creams, and the like. See Abstract. Surfactants suitable for use include anionic, nonionic, amphoteric, betaine, or cationic, as well as mixtures thereof. Suitable anionic surfactants include alkyl sulfates, alkyl ether sulfates, isethionates, etc., wherein the alkyl group has from about 6 to about 30 carbon atoms, alkyl betaines, alkylamido

betaines, alkylamido sultaines, etc. See paras. 40-45. Additionally, the compositions may include one or more optional ingredients including a pearlescent or opacifying agent, a thickening agent, humectants, chelating agents, colorants, fragrances, preservatives, etc. See para. 46. Thickening agents which are capable of imparting the appropriate viscosity to the composition include PEG-150 distearate, etc. See para. 50.

(Ans. 15-16.)

ANALYSIS

Based on the foregoing findings the Examiner finds that

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use a thickening agent such as PEG-150 distearate in the cleaning composition taught by Patel, . . . [Brooks], Fairley . . .[, Gallagher], or Baravetto . . . because Booker et al[.] teach the use of PEG-150 distearate as a thickening agent in a similar cleaning composition.

(Ans. 16.)

Appellants contend that Booker does not make up for the deficiencies in any of Patel, Fairley, Gallagher, Brooks or Baravetto (App. Br. 34). We agree.

Claim 1 is discussed above. Claims 11-13 depend directly or indirectly from claim 1. Claim 17 requires, *inter alia*, that the weight ratio of the betaine surfactant to the alkylamido hydroxysultaine is in the range of from about 0.5 to about 1.5, and the weight ratio of the alkyl ethoxy sulfate surfactant to the sum of the weights of betaine surfactant and alkylamido hydroxysultaine surfactant is in the range of from about 0.5 to about 1.5.

The Examiner has failed to identify, or provide any persuasive evidence or reasoning to establish that Booker makes up for the failure of

Brooks, Patel, Alvarado, Baravetto, Fairley, or Gallagher to suggest a composition that requires a *relationship* between the weight ratios of particular ingredients in the composition.

CONCLUSION OF LAW

The Examiner failed to meet his burden of establishing that the prior art teaches a composition wherein the weight ratio of the betaine surfactant to the hydroxysultaine surfactant or alkylamido hydroxysultaine is in the range of from about 0.5 to about 1.5, and the weight ratio of the alkyl ethoxy sulfate surfactant to the sum of the weights of betaine surfactant and hydroxysultaine surfactant or alkylamido hydroxysultaine is in the range of from about 0.5 to about 1.5 as required by Appellants' claimed invention

The rejection of claims 11-13 and 17 under 35 U.S.C § 103(a) as unpatentable over the combination of Patel, Fairley, Gallagher, Brooks, or Baravetto taken with Booker is reversed.

The combination of Baravetto and Fairley or Brooks and Fairley:

ISSUE

Did the Examiner meet his burden of establishing that the prior art teaches a composition wherein the weight ratio of the betaine surfactant to the hydroxysultaine surfactant is in the range of from about 0.5 to about 1.5, and the weight ratio of the alkyl ethoxy sulfate surfactant to the sum of the weights of betaine surfactant and hydroxysultaine surfactant is in the range of from about 0.5 to about 1.5 as required by Appellants' claimed invention?

FINDINGS OF FACT

FF 7. The Examiner relies on Baravetto, Brooks, and Fairley as discussed above (Ans. 17).

FF 8. The Examiner finds that Baravetto and Brooks do “not teach the use of silicone microemulsion in addition to the other requisite components of the composition as recited by the instant claims” (*id.*).

ANALYSIS

Claims 5 and 6 depend directly from claim 1. As discussed above, we have already found that the Examiner has failed to identify, or provide any persuasive evidence or reasoning to establish that Baravetto, Brooks, and Fairley teach Appellants’ claimed invention which requires, *inter alia*, a *relationship* between the weight ratios of particular ingredients in the composition. Here, the Examiner has failed to provide any persuasive evidence or reasoning to support a conclusion that the combination of this evidence overcomes the deficiency set forth above.

CONCLUSION OF LAW

The rejection of claim 5 under 35 U.S.C § 103(a) as unpatentable over the combination of Baravetto and Fairley is reversed.

The rejection of claims 5 and 6 under 35 U.S.C § 103(a) as unpatentable over the combination of Brooks and Fairley is reversed.

REVERSED

Appeal 2008-3958
Application 10/764,114

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